

# An Exploration of Elementary School-Aged Children's Cognitions of Fruits and Vegetables

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HOMESTYLES  
HEALTHY HOME HEALTHY FAMILY

## Abstract

### Objective

To examine cognitions and behaviors of 6-to-11 year-olds' related to fruits and vegetables (F/V).

### Methods

A brief survey was completed by 194 kids from 3 states (NJ, FL, WV). Of these children, 33 participated in focus group discussions on F/Vs conducted by trained moderators. Two researchers coded and analyzed focus group data to identify trends and common themes.

### Results

Survey results indicate kids ate fruits more often than vegetables, averaging 4.74±2.56SD and 4.06±2.73SD days/week, respectively. Lunch and dinner was when kids most commonly ate the F/V they reported liking (apples, strawberries, broccoli, carrots). Focus group discussions revealed kids felt F/Vs were important to eat and demonstrated good knowledge of the benefits of F/Vs (helping bodies grow stronger, promoting good eyesight and healthy teeth, giving the body energy throughout the day). Children felt parents played a large role in influencing their F/V intake by encouraging kids to eat a variety of F/Vs for health and nutritional benefits. Kids reported their F/Vs preferences and tastes were similar to their parents and indicated they often shared F/V with them. If they observed parents eating F/V frequently, kids said they would try to eat F/Vs more often. Several children indicated that parents rewarded them for trying new F/Vs while other kids reported their parents forced them to eat F/Vs. Numerous barriers prevented kids from eating a variety of F/Vs often, such as disliking taste, texture, or preparation method and lack of F/V accessibility and availability. To overcome barriers, kids wanted parents to incorporate more F/Vs into meals or snacks each day. Other strategies kids proposed were letting kids help prepare F/Vs, mixing F/Vs into other foods, serving F/Vs with meals, serving sauces or dips with F/Vs (caramel, peanut butter, salad dressing), cutting F/Vs into fun shapes, rewarding kids for eating F/Vs with food (candy/chips) and non-food items (money/toys), planting a vegetable garden, buying F/Vs kids prefer, and making F/Vs readily accessible and available in the home.

### Conclusion

Future obesity prevention programs should aim to help children learn effective strategies for incorporating more F/Vs into their diets and helping parents understand how kids can take an active role in improving their F/V intake.

## Methods

- Survey on Health Behaviors: 194 participants
- Focus group discussions of F/V cognitions and behaviors: 33 participants

## Sample

- Children ages 6 to 11 years
- Residence in Florida, New Jersey, or West Virginia



## Results

### Days per Week that Fruits and Vegetables Are Consumed\*

Questions	Mean	SD
Total days/week ate vegetables	4.06	2.73
Total days/week ate fruits	4.74	2.56

Common Themes	Child Quotes
<b>Effects of Eating Fruits and Vegetables</b>	
Gives the body energy	"They help you run and jump and keep you from feeling lazy"
Helps the body grow stronger	"They help you grow big bones and muscles"
Promotes good eyesight	"They have vitamins to help you, they also help you to see better"
<b>How do you think your parents' fruit and vegetable intake affects your fruit and vegetable intake?</b>	
Similar tastes and preferences	"Children eat vegetables and fruits specific to the preference of one parent (usually mom)"
Influenced by parents' F/V intake	"If we see them eating it, we may want to eat fruits and vegetables more often"
Encouraged to eat a variety of F/Vs	"Encourages me to eat like my parents"
<b>What stops you from eating fruits and vegetables often?</b>	
Dislike in taste and texture	"If there are other options that taste better. I will grab an apple, but if I see my brother eating Doritos, and I want to eat those instead"
Preparation method	"The way they are cooked"
Lack of accessibility or availability	"I don't have them at home"
<b>What are fun things you or your parents could do to help you eat more fruits and vegetables?</b>	
Mix F/Vs into other foods	"Sometimes mixing it in and not knowing it is there"
Serve sauces or dips with F/Vs	"Would help with eating vegetables by dipping them in sauces, dips, like dipping carrots in ranch dressing and apples in caramel"
Plant a vegetable garden	"Growing things in a garden"

## Focus Group Content Analysis

### Importance of F/Vs

- Good knowledge of F/V benefits
- ### Children's View of Parental Roles Regarding F/V
- Influence F/V intake
  - Encourage kids to eat a variety of F/Vs
  - F/Vs preferences are similar to kids
  - Provide rewards for trying new F/Vs or force F/V intake

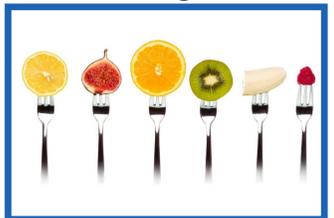


### Children's Barriers to Eating F/Vs

- Dislike F/V taste or texture
- Dislike F/V preparation method
- Lack of F/V accessibility and availability

### Children's Suggestions for Overcoming Barriers to Eating F/Vs

- Parents can...
  - Incorporate F/Vs into meals or snacks
  - Make F/Vs accessible and available
  - Let kids help with meal preparation
  - Serve F/Vs with meals
  - Serve F/V with sauces or dips
  - Cut F/V into fun shapes
  - Reward kids for eating F/Vs with food or non-food items
  - Plant a vegetable garden



## Strengths and Limitations

- Diverse sample from 3 states (FL, NJ, WV)
- Constant comparison method used to identify data saturation point
- Focus groups were conducted by different moderators, however moderators were trained and used scripted, structured protocols to ensure uniformity and consistency
- Semi-structured focus group to permit probing of responses
- Data were coded and analyzed by researchers trained in qualitative data analysis; two researchers independently conducted content analysis and compared results for agreement

## Conclusion

- Kids were aware of the importance of incorporating more F/Vs into their diets
- Children felt parents played a pivotal role in facilitating their F/V intake
- Future obesity prevention programs should
  - aim to help parents with elementary school-aged children learn effective strategies for incorporating more F/Vs into family members' diets
  - help parents understand how kids can take an active role in improving their F/V intake

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